REMARKS

Claims 1; 7; 8; and 24 have been amended.

Claims 1 to 14; 24; and 45 to 48 remain in the application. Among these, claim 1 is the sole independent apparatus claim, and claim 24 is the sole independent system claim.

Independent claims 1 and 24 have been amended to define an implant (or a system that includes an implant) comprising a plurality of magnetic particles bound within a biocompatible flexible polymer matrix in a desired ratio of magnetic particles to a biocompatible polymer. As defined in the amended claims, the desired ratio provides flexure of the polymer matrix between the magnetic particles. The biocompatible flexible polymer matrix is sized and configured for implanting in a tissue region along a pharyngeal conduit to magnetically interact with a source of magnetic force.

Support for the amendment to the claims can be found, e.g., on Specification Page 19, lines 11 to 22.

Claims 1; 2; 4; 6; 9 to 12; 14; 24; 47; and 48 stand rejected under 35 U.S.C. §102(b) based upon Freedman US 5,176,618. Claims 3 and 13 stand rejected under 35 U.S.C. §103 based upon Freedman in view of Liu (US 2002/0066702). Claims 7 and 8 stand rejected under 35 U.S.C. §103 based upon Freedman in view of Knudson (US 6,523,542).

The Examiner states that Freedman discloses a plurality of magnetic particles bound within a flexible polymer matrix. Applicant respectfully disagrees. Freedman does not teach or suggest a plurality of magnetic particles that are bound within a biocompatible flexible polymer matrix in a desired ratio of magnetic particles to a biocompatible polymer, to provide flexure of the polymer matrix between the magnetic particles. Freedman coats a single small permanent magnet within a polymeric material. Freedman's single magnetic implant is not flexible, but rather comprises a stiff implant for the concentration of force at a point contact, including wings that extend the contact region of the stiff implant.

See Freedman, Col. 7, lines 15 to 26:

"As a result of its small area, the internal magnet 1 acts on a wall of the airway almost as though it is pressing at a point contact. That region of contact, and thus the region that is inhibited from collapsing, can be effectively extended by a structural element attached to the magnet and flush with its pole face. Such a device is illustrated in FIGS. 3 and 4 as item 13.

Extender 13 is a semirigid polymer structure which may be attached to the internal magnet 1 for the purpose of increasing the area over which its force can be applied to airway wall." (Emphasis Added)

The stiff nature of the implant is further demonstrated by the teaching by Freedman to shape the implant. A flexible implant, as defined in the claims, does not need to be shaped, but will flex to conform to surrounding tissue.

Likewise, neither of the secondary documents Liu or Knudson overcomes the shortcomings of Freedman. Neither, alone or in combination with Freedman, teaches or suggests a plurality of magnetic particles that are bound within a biocompatible flexible polymer matrix in a desired ratio of magnetic particles to a biocompatible polymer, to provide flexure of the polymer matrix between the magnetic particles.

As described during the interview last June, applicant has discovered that stiff magnetic implants like that disclosed by Freedman are less likely to be tolerated by the body. Applicant has discovered that imparting flexibility to an implant, as defined in the amended claims, avoids point contact and prevents foreign body sensation and the concentration of force that can lead to extrusion from the tissue, as well as provides an implant that does not interfere with normal functions such as speech and swallowing.

Claims 1 to 14; 24; and 45 to 48 are believed to be in condition for allowance. If the Examiner believes that questions or matters of clarification remain, which can be handled expeditiously by an interview, either in person or by telephone, to advance prosecution of this case, the applicant remains committed to proceed on that basis.

Respectfully Submitted,

By_____
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